87.A.10

THE RELATIONSHIP BETWEEN IMMIGRATION AND THE CANADIAN ECONOMY

by

Shirley B. Seward

January 1987

This study was conducted in connection with Health and Welfare Canada's Review of Demography and its Implications for Economic and Social Policy (The Demographic Review).

Shirley Seward is Director of Studies in Social Policy at The Institute for Research on Public Policy.

91-01540/

Table of Contents

A. Immigration Policy in Perspective 1

B. The Demographic and Economic Role of Immigration in the Canadian Economy 3

The Demographic Role of Immigration 4

The Economic Role of Immigration 6

C. The Impact of Immigration on the Canadian Population and Economy: Empirical Evidence 7

The Demographic Impact of Immigration 7

The Economic Impact of Immigration 8

D. Conclusions and Implications for Further Research 11

References 13

Charts and Tables 15

THE RELATIONSHIP BETWEEN IMMIGRATION AND THE CANADIAN ECONOMY

Shirley B. Seward*
The Institute for Research on Public Policy

A. Immigration Policy in Perspective

On October 30, 1986, the federal government tabled its *Annual Report to Parliament on Future Immigration Levels* (CEIC 1986), which raised gross immigration levels to 115,000-125,000 for 1987, up from the planning level of 105,000 to 115,000 for 1986. This represents the second consecutive year in which the government has endeavoured to increase immigration in a gradual manner, after several years of non-expansionist immigration policy and relatively low levels of immigration to Canada.

In order to appreciate the significance of this policy shift in the mid-1980s, it is helpful to briefly review the different phases of Canadian immigration since World War II, as well as the underlying economic and demographic conditions associated with changing immigration policy. The postwar period saw an upsurge of immigrants. During the period of rapid economic growth in the 1950s and 1960s, an average of 130,000 immigrants per year entered Canada, with wide fluctuations reflecting the "tap-on, tap-off" approach which based decisions regarding immigration levels on short-term labour force considerations.

The open policy of the 1960s was expressed in the expansionist 1966 White Paper, which assumed that immigration plays a critical role in population and economic growth, particularly by permitting realization of economies of scale and thereby lowering prices of goods and services. The 1967 Regulations established a "points system" for selection of independent immigrants that placed priority on education, skills and occupational background of immigrants and which corresponded to current labour market needs. This policy stance was not surprising given the nature of the rapidly developing Canadian economy, which was frequently characterized by shortages of professional and skilled labour (Newton, Betcherman and Meltz 1981).

By sharp contrast, the mid-1970s witnessed a reversal in immigration policy that stressed the high costs not only of immigration, but of population growth more generally. There was some fear that immigration was out of hand, having reached about 220,000 in 1974 (Taylor 1986). At the same time, the 1970s were characterized by very rapid growth of the labour force (3 per cent), the highest growth rate of any decade in the twentieth century. This was due, in part, to the entrance into the labour force of the baby boom generation born in the late 1940s and 1950s, in part, to increasing participation rates,

* The author is grateful to Bart Édes for the research assistance he provided during the summer of 1986, when he was an intern at The Institute for Research on Public Policy.

especially of women, and in part, to high immigration levels. While the labour force was growing, Canada, like many industrialized economies, was seriously affected by the energy crisis, with associated production slowdowns as well as high rates of inflation. The result of these demographic and economic forces was an increasing level of unemployment. The reaction of the Canadian government was to endeavour to protect the living standards of its domestic residents, in part, by restricting immigration (Marr and Percy 1985). The 1974 Green Paper reflected this stance, stressing the high costs of population growth.

During the late 1970s, the second oil shock further upset the international economic environment. In Canada, the early 1980s were characterized by high unemployment, high interest rates and general recessionary conditions. Perhaps not surprisingly, immigration policy became even more controlled in 1982, through a new provision that required all principal applicants in the independent class (selected immigrants) to have a validated job offer in Canada as a condition of entry.

These immigration policies, coupled with relatively poor economic conditions in Canada, resulted in a sharp decline in gross immigration levels, with some annual fluctuations, from (approximately) 220,000 in 1974 to 143,000 in 1980 and 88,000 in 1984 (CEIC 1985). At the same time, due to the relatively poor employment climate and restrictionist policies towards immigrants selected for the labour force, the economic class of immigrants as a percentage of total landings declined from 34.4 per cent in 1980 to 22.3 per cent in 1984 (CEIC 1985, a).

Given this background of nearly 10 years of non-expansionist immigration policy, it is particularly interesting that the mid-1980s are witnessing a major re-thinking of immigration issues. It is no accident, of course, that the movement towards a more expansionist approach to immigration is occurring at a time when Canada has emerged from the recession of the early 1980s. Interest rates and inflation have declined significantly, and unemployment, although still high, has fallen from the levels of the early 1980s.

This change in thinking was signalled in November 1984, with the tabling of the *Annual Report to Parliament on Future Immigration Levels* (CEIC 1984). The new Conservative federal government reverted temporarily to a one-year planning cycle and announced a continuation of current levels of immigration for 1985 (85,000-90,000), as well as maintaining the 1982 restriction on selected workers. However, the government indicated that a review of immigration would immediately be instituted, as there was concern about the recent decline in immigration levels, and about the long-term relationship between immigration and Canada's demographic future, given current projections of the decline in the size and concomitant aging of the Canadian population.

In June 1985, a government report stressed the need for policy change and called for a "moderate, controlled increase" in immigration levels, particularly in the economic category that had been losing ground in recent years. The report stressed that immigration policy must be based on longer-term planning, rather than short-term labour force considerations (CEIC 1985, a).

In October 1985 the government announced a significant increase in target immigration levels from 85,000-90,000 in 1985 to 105,000-115,000 for 1986 and 115,000-125,000 for 1987 (CEIC 1985). Much of the increase for 1986 was in the economic class with a special emphasis on attempting to increase business immigration, including the creation of a new category of business immigrant – the investor. Furthermore, new selection criteria were introduced in the points system for independent immigrants, and the 1982 provision, which required independent applicants to have a validated job offer as a condition of entry, was eliminated.

As stated at the outset of this paper, a continuation of the policy to increase immigration levels was recently announced by the federal government, restating the intention to raise gross immigration levels for 1987 as high as 125,000. As in 1986, the major increase in immigration is to be in the economic class, with a particular focus on business immigrants.

The first section of this paper has reviewed the fluctuations in immigration policy since World War II and has related these, in general terms, to prevailing economic and demographic conditions in Canada. The purpose of the next section is to discuss briefly the demographic and economic role of immigration in the economy, focussing on the issues that appear to be most relevant for the 1980s and beyond. A third section reviews the empirical evidence regarding the relationship between immigration and population size/structure; immigration and the labour market; and immigration and the demand for goods and services. Finally, the concluding section summarizes what is known about immigration's demographic and economic impact, assesses the gaps in our understanding of these relationships, and suggests implications for further research.

B. The Demographic and Economic Role of Immigration in the Canadian Economy

Canadian immigration policy has several major objectives that can be categorized as follows: social, humanitarian, demographic and economic. The social objective stresses the importance of family reunification, and accounts for a major component of immigration flows, referred to as "family class" immigration. The humanitarian objective of immigration policy is evident in the admission of "convention" refugees, designated classes of people in refugee-like situations, and individuals admitted under relaxed criteria in special circumstances. The economic objective of immigration is explicitly related to the "economic" or "independent" class of immigrants, including selected workers (and their dependents) as well as business immigrants (self-employed persons, entrepreneurs and investors). These immigrants are selected in terms of their suitability to the labour market through a points system that stresses education, skills and occupational background (and, in the case of entrepreneurs and investors, the availability of funds to invest). However, as will be seen below, the economic impact of immigration results from the activities of all classes of immigrants. Similarly, the demographic objective is associated with the effect of all categories of immigrants on population size and structure. (See Table 1, which summarizes the relative size of the three classes of immigrants between 1970 and 1984.)

While the social and humanitarian objectives of immigration are critically important in overall immigration policy, the focus of this paper will be on the relationship between immigration and demographic/economic trends in Canada.

The Demographic Role of Immigration

The population literature makes two major observations about the demographic role of immigration. First, immigration flows augment the rate of growth and the overall size of the population. And, second, immigration can affect population structure, particularly age structure; i.e., the proportion of the population in various categories, including those over 65, under 14 and members of the labour force. The potential significance of these observations can best be understood in the context of changing demographic conditions in Canada, particularly the declining rate of growth of the population and labour force and the aging of the population.

In recent decades, the annual rate of population growth (natural increase plus net immigration) has declined steadily, from 3 per cent in 1957 at the height of the baby boom, to less than 1 per cent in 1984. It is argued that if fertility remains at the level of 1.7 children per woman, and net immigration remains at 50,000 per annum, Canada's population will peak at 29 million by 2020 and will decline thereafter (CEIC: 1984, a). Should fertility continue to fall to levels of 1.4 births per woman, and net immigration remains at 50,000 per annum, the Canadian population will peak at about 28 million by 2011 and will decline thereafter (Statistics Canada 1986).

The gradual decline in the rate of population growth has changed the age structure of the Canadian population, which is characterized by an aging trend. At the mid-point of the baby boom, the proportion of the population under age 14 was as high as it had been in the 1920s. With the maturation of the baby boom generation, and much lower fertility in the 1970s and 1980s, the smallest-ever proportion of the population is now under age 14 and the largest-ever share is accounted for by the elderly over 65. Moreover, these trends are projected to continue in the future.

At the same time, the rate of growth of the labour force has recently begun to slow, after several decades of rapid growth. Over the period 1911 to 1981 the labour force source population grew at an average annual rate of about 1.9 per cent, with growth over the 1950s, 1960s and 1970s all exceeding this longer-term average. As indicated in Section A above, the rate of labour force growth reached 3 per cent in the 1970s, higher than any other decade in the century.

In the 1980s, however, the rate of growth of the labour force has begun to slow, in part due to dramatically declining fertility rates over the 1960s and 1970s, and in part due to declining immigration levels – particularly economic immigration – in the early 1980s. Moreover, it is likely that the rate of growth of the labour force will continue to decline in the future, particularly if fertility rates continue to decline and if immigration is not dramatically increased. To a certain extent, this may be offset by a continuing increase in labour force participation rates, particularly for women. In any case,

whatever else occurs, it is clear that a large proportion of the baby boom generation will have worked its way through the labour force by the early part of the twenty-first century.

There is vast literature on the economic consequences of population growth, decline and aging, including several studies on the implications of an aging labour force. While it is not possible to review the literature here, it is useful to summarize some of the major arguments in favour of population growth or, at least, for an arrest in population decline:

- A larger population permits economies of scale, both in production and in the provision of social overhead capital. This should lower per capita costs of public and private goods and services, and raise per capita income;

- A larger population base is conducive to a more rapid pace of technological change. This link between population growth and productivity growth should lead to higher per capita income;

- An aging population will place an increasingly greater burden on a diminishing labour force to provide social benefits such as health care and pensions to an expanding elderly population;

- An aging labour force is less likely to be able, or to be willing, to adapt to structural changes associated with an increasingly competitive international environment and rapid technological change.

It should be stressed that a number of these arguments are extremely controversial. Furthermore, there is no agreement as to what the "optimum" population size for Canada should be. There seems to be reasonable consensus, however, in the academic and policy community that population growth does have a positive effect on economic growth and that, at a minimum, an attempt should be made to arrest the future decline of the Canadian population.

If this demographic objective is to be pursued, two areas of public policy assume relevance: first, the encouragement of higher fertility; and, second, the encouragement of higher net immigration (by increasing gross immigration and endeavouring to stem emigration). It is sometimes argued that higher fertility could be encouraged by a range of public policies, including child care and tax incentives. Indeed, a number of European countries have developed explicit pro-natalist policies through the introduction of incentives such as better maternity leave. It would appear, however, that these policies have met with mixed success. One can only speculate about the extent to which pro-natalist policies would be effective in Canada. What is clear, however, is that the discussion of pro-natalist policies has not yet received much attention in governmental debate or legislation.

This points to immigration as the key public policy lever for increasing the overall size and rate of growth of the population. Moreover, given the reluctance of Canadian governments to stem the free movement of people through restrictions on emigration, immigration policy tends to concentrate on the level and composition of gross

immigration flows as the key mechanisms for meeting demographic and economic objectives.

The Economic Role of Immigration

From an economic perspective, immigration plays both a supply and a demand role.

From a supply perspective, the productive capacity of the economy is augmented by the addition of immigrants to the labour force, which, as noted above, favourably alters the structure of the population. However, not only the size, but also the composition of the labour force is potentially affected. Specifically, the education, skills and occupational background of immigrants may differ from those of the domestic labour force. To the extent that these skills are in scarce supply, immigrant labour may fill particular shortages and, according to the "bottleneck" or "structural-unemployment" perspective on production, may "allow unemployed resources to be employed, and the national income to be increased accordingly" (Denton and Spencer 1978, 109). As the same researchers point out, whether this perspective is correct or not depends on the time frame: "the scope for substituting one type of labour (or capital) for another may be quite limited in the shorter run but much greater in the longer run. Thus, immigration designed to provide scarce types of labour might be regarded as a means of compensating for the failure to anticipate future shortages, or to adjust them with sufficient rapidity when they arise." (Denton and Spencer 1978, 109).

It should be noted that there is considerable debate regarding the role of immigrant labour in relieving bottlenecks (e.g., Star 1975, Gunther 1975, Robertson and Roy 1982). It is sometimes argued that the importation of labour to fill vacancies discourages wage rate increases, thereby discouraging the domestic labour force from acquiring the required training or being sufficiently mobile to move into areas of labour shortages. Furthermore, there is considerable debate as to whether Canada has relied too heavily on importing skills, rather than providing the necessary training to the domestic population.

Notwithstanding the debate, there is little question that Canada has faced, and will continue to face, particular labour and skill shortages. As pointed out by Newton, Betcherman and Meltz (1981), the late 1940s, 1950s, 1960s and early 1970s witnessed significant shortages of professional and skilled workers. Furthermore, a number of analyses have suggested a re-emergence of unpredictable skill shortages in the 1980s (Economic Council of Canada 1982, CEIC 1981, and House of Commons 1981). While concern about skill shortages was muted during the recession and high unemployment in the early 1980s, there now appears to be renewed concern about this issue in the mid-1980s. Not surprisingly, there is also a re-emergence of debate regarding the role immigration can play in filling these shortages.

Finally, as indicated above, immigration also plays a role on the demand side of the economy. Immigration may increase total consumption expenditures; government expenditure on education, training, health and other programs; demand for housing; and so on (Foot 1984). In short, to the extent that immigration increases the size of the total population, it should have a stimulative effect on the economy. The nature of this effect,

of course, will depend not only on the overall numbers of immigrants but also on their characteristics. It is assumed, for example, that the age/sex structure, income levels, and propensity to consume of immigrants will affect not only the ratio of immigrant saving to consumption, but also the disaggregated components of consumption.

C. The Impact of Immigration on the Canadian Population and Economy: Empirical Evidence

The Demographic Impact of Immigration

How has immigration affected the rate of growth and the age structure of the Canadian population?

It is estimated that over the century 1881-1981, net immigration (immigration minus emigration) accounted for one-fifth of total population growth, while natural increase accounted for four-fifths. In recent years, as indicated in Table 2, the absolute level of natural increase remained relatively stable, fluctuating from a low of 192,000 persons per annum to a high of just over 200,000 per annum over the period 1976 to 1985. This was despite a gradual decline in the fertility rate from 1.825 in 1976 to 1.686 in 1984. By contrast, net annual immigration levels exhibited considerable variation during the same period. As a result, the magnitude of the role played by net immigration has fluctuated dramatically, accounting for only 10.1 per cent of annual growth in 1978 as compared to 31.6 per cent, or almost one-third of annual growth in 1980. In 1985, when net immigration was 36,600, it accounted for only 15.4 per cent of total annual growth of the population, much lower than the 22 per cent average annual contribution of net immigration to population growth over the 10 year period.

These figures suggest that immigration has contributed significantly to the rate of population growth, even though its contribution has declined in recent years. While natural increase is clearly the more important variable, fertility rates have been steadily declining, and the evidence from many other industrialized countries suggests that the decline may continue (Taylor 1986). If the current expansionist immigration policy continues, it is likely that immigration will play an important role in population growth in the future.

Immigration has also affected the age structure of the Canadian population. The age composition of the total stock of the immigrant population differs from that of non-immigrants. The immigrant population tends to be older. Based on census data, the average age of immigrants was 43 in 1981, compared to about 30 for non-immigrants. Those under age 20 accounted for only 12 per cent of immigrants, but 36 per cent of non-immigrants. By contrast, 17 per cent of immigrants were 65 or over in 1981, while only 8 per cent of non-immigrants were in this age group (Statistics Canada 1984).

On the basis of this evidence, it would appear that immigration is contributing to the aging of the population. However, this conclusion is misleading because it does not take into account the fertility behaviour of immigrants after their arrival in Canada.

Quite appropriately, the children born to immigrants after their arrival are not considered immigrants, but Canadian-born. Thus, the contribution of immigration to overall population growth is underestimated, and the average age of the immigrant population is higher than it would be if immigrant children were included in the calculation.

The Economic Impact of Immigration

(a) *Immigration and the Labour Force (The Supply Side)*

Immigration has a direct impact on both the size and the composition of the labour force. The size of the labour force is, of course, affected by both the rate of growth of the source population and by the rate of growth in participation rates.

As indicated in Table 3, net immigration's contribution to the growth of the source population has varied considerably over the last 30 years. During the period 1951-1956, net immigration accounted for over 47 per cent of its growth. By contrast, during the period 1979-1983, net immigration accounted for only about 14 per cent of the growth of the source population. This was due in part to falling immigration levels in the early 1980s, and in part to a gradual decline in the proportion of immigrants destined to the labour force. Whereas in 1970, 53 per cent of all immigrants were destined to the labour force, this proportion had fallen to 44 per cent by 1984 (Samuel and Francolini 1985).

To a certain extent, however, immigration's contribution to the size of the source population understates its overall contribution to the growth of the labour force. This is because the participation rate of immigrants, when controlled for age, is higher than that of non-immigrants. In 1981, the age adjusted participation rate of immigrant men was 79.4 per cent, compared to 77.9 per cent for non-immigrants. The differential for women was even greater, with a participation rate of 55.6 per cent for immigrants compared to 50.6 per cent for non-immigrants (Statistics Canada 1985).

Immigration has also affected the composition of the labour force, particularly in terms of education, skill and occupational characteristics. Canada has traditionally relied heavily on immigrants to supply skilled labour needs. During the 1950s and 1960s, over 40 per cent of all immigrants destined to the labour force intended to enter professional, technical or skilled occupations. Moreover, the proportion of immigrants intending to enter professional and technical occupations increased from 4 per cent in 1951 to 27 per cent in 1971. At the same time, immigrants intending to enter unskilled occupations dropped from 43 per cent in 1951 to 14 per cent in 1971 (Parai 1974 and Library of Parliament 1986). This shift was attributable, at least in part, to the 1967 points system that gave preference to highly educated and skilled immigrants. In more recent years, this trend has continued. In 1984, 22.4 per cent of immigrants destined to the labour force were in professional and administrative occupations, and 20.2 per cent were in manufacturing and fabrication (CEIC 1986, b).

However, the occupations which immigrants intend to enter are not always a reliable indication of the occupations that they actually fill after arrival and settlement in

Canada. It is therefore useful to examine the actual distribution of labour force activity of the immigrant and non-immigrant populations, based on the 1981 census. As Chart 1 indicates, a higher percentage of immigrant versus non-immigrant men had managerial, professional or technical jobs: 28 per cent versus 23 per cent. Also, while 25 per cent of immigrant men were in processing, machining, product fabricating and assembling, the corresponding proportion for non-immigrant men was less than 20 per cent. As illustrated in Chart 2, for both immigrant and non-immigrant women the major occupational group was the clerical category. Interestingly, a larger proportion of immigrant women than non-immigrant women were in processing, machining, product fabricating and assembling.

Finally, there are contrasts between immigrants and non-immigrants in terms of educational attainment. Census data for 1981 suggest that 10.5 per cent of immigrants had university degrees compared to 8 per cent of non-immigrants. Higher education was particularly characteristic of two categories of immigrants: those who came to Canada as children and were educated in this country (10 per cent had degrees) and those who arrived after 1961 in the 25-44 age bracket who likely had to qualify under the points system (20 per cent had degrees). At the other extreme, a larger proportion of immigrants (27.5 per cent) than non-immigrants (21 per cent) had less than Grade 9 education. Within the immigrant population, this level of education was more prevalent among women than among men. In both the immigrant and non-immigrant populations, less than Grade 9 education was more prevalent among elderly people.

(b) *Immigration, the Demand for Goods and Services, and the Derived Demand for Labour* (The Demand Side)

Over the past decade a number of empirical studies of the economic impact of immigration have been undertaken, using Canadian macroeconomic models, including CANDIDE, TRACE, RDX2 and the Informetrica Limited National Forecast Service model. The structure of these models varies, as have the assumptions incorporated to study the impact of varying immigration levels for different periods in time. In general, however, the models explore the relationship between immigration and labour force, gross national expenditure, investment, employment, inflation, wages, per capita income and unemployment.

In a particularly interesting comparative study, Davies (1977) utilized CANDIDE, TRACE and RDX2 to assess the impact of varying levels of net immigration (0, 100,000 and 200,000 per annum) on the economy. He found that higher levels of net immigration increased aggregate variables, such as total real gross national expenditure, total real consumption, employment and investment (especially residential investment). However, higher net immigration resulted in lower per capita income and higher unemployment, since output grew at a slower pace than the increase in population.

Davies' findings are not dissimilar to those of other more recent studies (Rao and Kapsalis 1982, Fairholm 1984). As Marr and Percy have summarized:

> The broad consensus is that higher levels of immigration will increase aggregate variables such as labour force, investment and real gross

> expenditure, but cause measures of intensive growth such as real income per capita and real wages to decline. Other effects of increased migration include a slowdown in inflation and a rise in unemployment.
>
> (Marr and Percy 1985, 77)

However, the effects are relatively small. Referring to studies by Davies (1977) and Rao and Kapsalis (1982), Marr and Percy point out:

> An increase in annual net migration from 100,000 to 200,000 per annum would have caused the annual average growth of real gross national expenditure per capita for the period 1961-74 to fall from 3.57 percent to 3.43 percent for the CANDIDE model, from 3.80 percent to 3.34 percent for TRACE, and from 3.80 percent to 3.72 percent for RDX2. A more recent simulation exercise using a revised version of the CANDIDE model (Rao and Kapsalis, 1982) found that an increase in net immigration from 50,000 to 100,000 per year beginning in 1980 would reduce real per capita GNP in 1980 by 0.24 percent and in 1990 by 1.50 percent below the corresponding base case simulation value.
>
> (Marr and Percy 1985, 78)

Viewing these results superficially, it would be possible to conclude that immigration has a relatively modest but negative net impact on the economy, particularly in terms of per capita income and unemployment. However, numerous criticisms have been made concerning the capacity of existing macroeconomic models to assess the impact of immigration, and several of these criticisms suggest that the positive effects of immigration may have been underestimated. Examples of these criticisms – and their implications – follow.

Most of the studies utilizing macroeconomic models do not take account of the human and financial capital associated with immigrant flows. As indicated in Section C above, a significant proportion of immigrants are highly educated and skilled, bringing with them human capital, which represents an expenditure made in the sending country, not in Canada. Furthermore, recent statistics suggest that immigrants – and particularly business immigrants – bring capital with them. As indicated in Table 4, the estimated level of funds brought in by all immigrants was $1.6 billion in 1983 and $1.7 billion in 1984. Interestingly, while entrepreneurs and self-employed persons accounted for a very small proportion of total landings in 1983 and 1984 (3.5 to 4 per cent), they accounted for 50 per cent of all immigrant funds in 1983 and over 40 per cent in 1984. It is not unreasonable to suggest that these funds, particularly if invested, could raise aggregate demand more than the modelling exercises have estimated. The overall impact would be affected, of course, by the level of remittances sent to the immigrants' countries of origin.

In the case of business immigrants, the models do not take into account the potential direct job creation aspects of their activities. While it is difficult to accurately quantify such jobs, a "preliminary analysis of business immigration in 1985 indicates that 2,136 visas were issued to entrepreneurs and self-employed persons, who declared a total of $1.2 billion in total funds and who intended to create some 9,715 jobs for Canadians" (CEIC 1986, 7). In interpreting these figures, of course, it is important to recognize that immigrants' intentions may not always correspond to actual behaviour.

Another weakness of most studies utilizing macroeconomic models to assess the economic impact of immigration is that they do not take into consideration the different consumption/savings patterns of immigrants as compared to the Canadian-born. In a recent paper by Marr and McCready (1986), the authors found significant differences in the consumption patterns of immigrants and the Canadian-born. For example, recent immigrants allocate a larger portion of their total income to food, shelter, household items, clothing and transport. If net immigration continues to increase in the future – as planned by the current government – this could create structural changes within consumer expenditure categories and, by extension, in employment patterns.

A further characteristic of most modelling studies is that they do not take into account the possibility that immigrants may fill critical labour shortages, thereby relieving bottlenecks and stimulating employment in associated sectors of the economy. As indicated above, a relatively large proportion of immigrants in the labour force are highly educated and comprise an important component of professional, managerial and skilled occupations. Furthermore, it is clear that these attributes have made a difference to Canada's economic development since World War II. What is not clear, however, is the extent to which immigrants displace Canadians; the extent to which immigration prevents upward wage adjustments that would theoretically attract more Canadians into the labour force; or the extent to which more effective training and mobility programs for Canadians would better provide for labour and skill shortages. With respect to the latter point, it is difficult to assess whether immigration to supply labour needs has diminished internal migration within the country.

A number of other weaknesses of macroeconomic modelling studies could be cited, if space permitted. However, it is important to make one final observation. Despite their weaknesses, these empirical studies have brought into the forefront the importance of studying the demand role of immigration, and have pointed to the gaps in our understanding of the relationship between immigration and the economy. The challenge now is to build on these studies and to conduct further research that would provide the kind of information that is useful for policy purposes.

D. Conclusions and Implications for Further Research

As the evidence in this paper has indicated, immigration plays a significant role in the Canadian economy. It has an impact on the rate of growth and structure of the population, as well as on the size and composition of the productive labour force. Moreover, it has a stimulative effect on the economy in terms of the aggregate demand for goods and services.

While it has been possible to quantify the relationships between immigration and the economy, it is clear that there are many gaps in our understanding of the impact of immigration from both a supply and a demand perspective. These gaps point to implications for further research.

In terms of supply, there is a relatively poor understanding of the issue of labour/skill shortages and its implications for both immigration and labour market policy. To what extent has reliance on imported skills inhibited the development of adequate domestic training and mobility programs and policies? What is the relationship between immigration and internal migration as adjustment mechanisms for dealing with labour shortages, as well as regional disparities? How has the impact of immigration from a supply perspective varied from sector to sector, and from region to region?

From the demand perspective, two issues deserve particular attention. First, as Marr and McCready (1986) have found, there are important differences in the savings and consumption patterns of immigrants and non-immigrants. It would be useful to examine this issue further through an analysis of existing national surveys of family expenditure, in order to ascertain the magnitude of the differences. The results of this type of analysis could be used to assess the impact of immigration on different sectors of the economy. Second, given the financial flows and employment-generation potential associated with business immigrants, it would be worthwhile to undertake survey research on a sample of small businesses, including those owned by immigrants, to assess levels of investment, employment and production, as well as export performance associated with these enterprises. One design for such a study envisages a sample drawn in Ontario and Quebec with the immigrant sub-sample, including both business immigrants per se, as well as immigrants who were not originally categorized as business immigrants, but began to operate their own businesses after settling in Canada.

Finally, there is a serious dearth of research on the economic impact of emigration on both the supply and demand sides of the economy. What sectors of the economy and what regions are most affected by emigration? To what extent are particular skills depleted by the out-flow of particular occupational categories of individuals? Answers to these and other questions are critical to an understanding of the impact of international migration on the Canadian economy.

The above list of research priorities is by no means comprehensive, but is illustrative of the type of in-depth study that promises to shed more light on our understanding of demographic-economic interrelationships.

References

Davies, G.W. 1977. "Macroeconomic Effects of Immigration: Evidence from CANDIDE, TRACE, and RDX2". *Canadian Public Policy* 3(3):299-306.

Denton, F.T. and B.G. Spencer. 1978. "On the Prospect of a Labour Shortage". *Canadian Public Policy* 6(1):101-118.

Economic Council of Canada. 1982. *In Short Supply: Jobs and Skills in the 1980s*. Ottawa: Supply and Services Canada.

Employment and Immigration Canada. 1981. Task Force on Labour Management Development, *Labour Market Developments in the 1980s: A Report*. Ottawa: Supply and Services Canada.

Employment and Immigration Canada. 1984. *Annual Report to Parliament on Future Immigration Levels*. Ottawa: Employment and Immigration Canada.

Employment and Immigration Canada. 1984, a. *Background Paper on Future Immigration Levels*. Ottawa: Employment and Immigration Canada.

Employment and Immigration Canada. 1985. *Annual Report to Parliament on Future Immigration Levels*. Ottawa: Employment and Immigration Canada.

Employment and Immigration Canada. 1985, a. *Report to Parliament on the Review of Future Directions for Immigration Levels*. Ottawa: Employment and Immigration Canada.

Employment and Immigration Canada. 1986. *Report to Parliament on Future Immigration Levels*. Ottawa: Employment and Immigration Canada.

Employment and Immigration Canada. 1986, a. *Immigration Statistics 1984*. Ottawa: Supply and Services Canada

Fairholm, R. 1984. "The Dynamic Impact of Low-Immigration Shock to the Data Resources Model of the Canadian Economy, 1984-2008". *Data Resources Long-term Canadian Review* 8(2):185.

Foot, D.K. 1984. "A Strategic Framework for Immigration Levels Planning". Prepared for Policy and Program Analysis Branch, Strategic Policy and Planning: Employment and Immigration Canada.

Gunther, P. 1975. "Canada's Immigration Policy: Some Comments". *Canadian Public Policy* 1:580-83.

House of Commons. 1981. Special Committee on Employment Opportunities for the '80s. *Work for Tomorrow: Employment Opportunities for the '80s*. Ottawa: Supply and Services Canada.

Library of Parliament. 1986. *Immigration and the Canadian Labour Market*. Backgrounder prepared by Kevin B. Kerr, Economics Division, Research Branch. Ottawa: Library of Parliament.

Marr, W.L. and D.J. McCready. 1986. *The Expenditure Patterns of the Canadian-Born and the Foreign-Born in Canada, 1982*. Department of Economics Working Paper 8691. Wilfrid Laurier University.

Marr, W.L. and M.B. Percy. 1985. "Immigration Policy and Canadian Economic Growth". In *Domestic Policies in the International Economic Environment*, ed. Whalley, J. Toronto: University of Toronto Press, and Ottawa: Supply and Services Canada.

Newton, K., G. Betcherman, and N. Meltz. 1981. "Diagnosing Labour Market Imbalances in Canada". *Canadian Public Policy* 7:1, 94-102.

Parai, L. 1974. *The Economic Impact of Immigration*. Ottawa: Department of Manpower and Immigration.

Rao, S. and C. Kapsalis. 1982. "Labour Shortages and Immigration Policy". *Canadian Public Policy* 8:379-83.

Robertson, M. and A.S. Roy. 1982. Reply to "Labour shortages and immigration policy". *Canadian Public Policy* 8(3):383-7.

Samuel, J. and S. Francolini. "Current Demographic Trends in Canada". Mimeo.

Seward, S. 1986. "More and Younger". *Policy Options* 7(1). The Institute for Research on Public Policy.

Star, S. 1975. "In Search of a Rational Immigration Policy". *Canadian Public Policy* 1 (Summer): 3.

Statistics Canada. 1984. *Canada's Immigrants*. Ottawa: Supply and Services Canada.

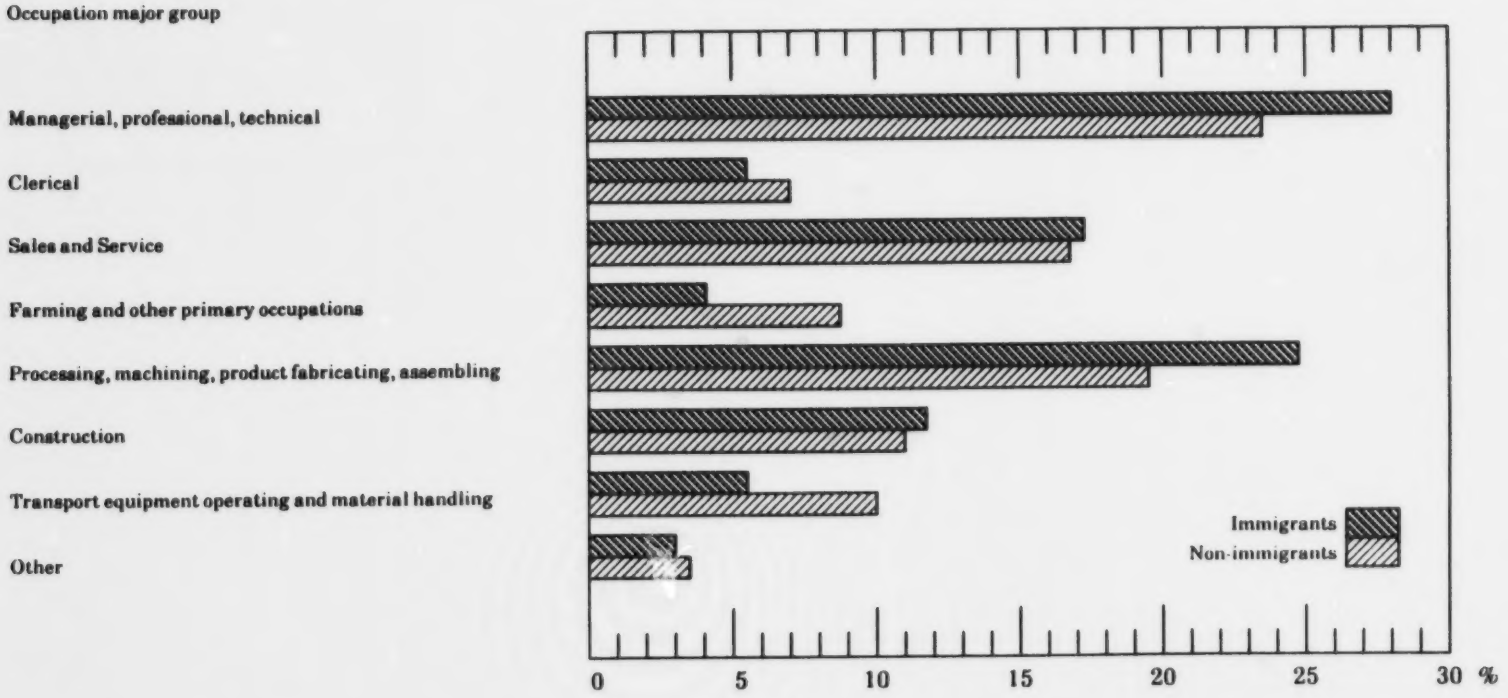
Statistics Canada. 1985. *The Labour Force*. Ottawa: Supply and Services Canada.

Statistics Canada. 1986. *Canadian Social Trends*. Summer 1986. Ottawa: Statistics Canada.

Taylor, C. 1986. "Demography and Immigration in Canada: Challenge and Opportunity". Paper Presented to the Fall Conference of the Association for Canadian Studies in the Netherlands. October 1986.

Chart 1

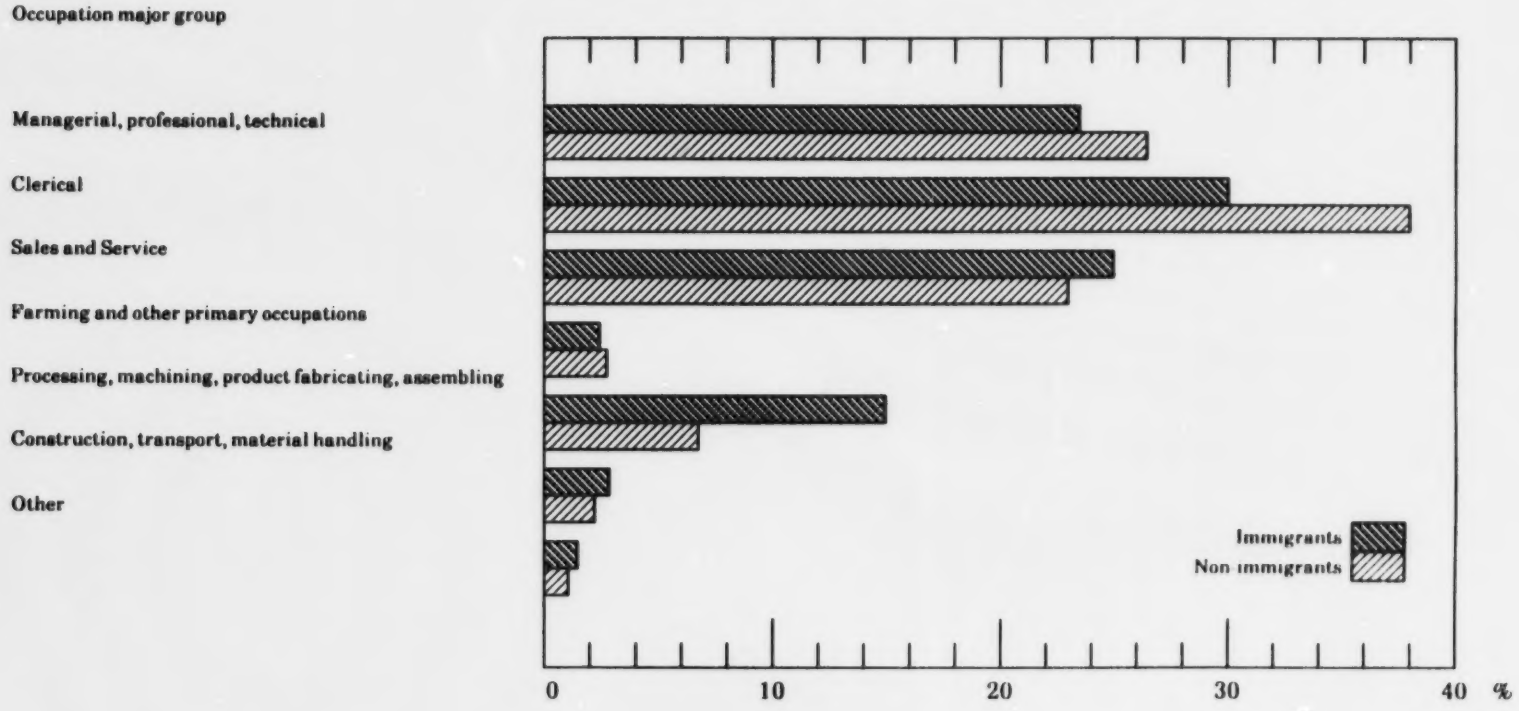
Percentage Distribution by Occupation: Major Groups of the Immigrant and Non-immigrant **Male** Labour Force 15 Years and Over Not Attending School Full-time, Canada, 1981



Source: Statistics Canada (1984), Chart 13.

Chart 2

Percentage Distribution by Occupation: Major Groups of the Immigrant and Non-immigrant **Female** Labour Force
15 Years and Over Not Attending School Full-time, Canada, 1981



Source: Statistics Canada (1984), Chart 14.

Table 1
Immigration by Policy Objective and Category

	Social (Family Class)	% of Total	Humanitarian (1) (Refugee and Designated Classes)		% of Total	Economic (2) (Independent and Assisted Relatives)		% of Total	Total
1970	32,263	21.8	--		--	115,450	(35,151)	78.2	147,713
1971	33,450	27.4	--		--	88,450	(29,328)	72.6	121,900
1972	33,019	27.1	5,180		4.2	83,807	(30,692)	68.7	122,006
1973	41,677	22.6	2,359		1.3	140,164	(44,278)	76.1	184,200
1974	54,232	24.8	1,666		0.1	162,567	(53,161)	75.1	218,465
1975	64,124	34.1	5,566		2.9	118,191	(45,727)	63.0	187,881
1976	60,830	40.7	11,751		7.9	76,848	(32,528)	51.4	149,429
1977	51,355	44.7	7,300		6.3	56,259	(26,114)	49.0	114,914
1978	45,540	52.8	4,255		5.0	36,518	(17,199)	42.2	86,313
1979	46,763	41.7	27,879	(264)	24.9	37,454	(11,474)	33.4	112,096
1980	51,027	35.7	40,348	(952)	28.2	51,742	(13,531)	36.1	143,117
1981	51,017	39.7	14,979	(810)	11.6	62,622	(17,590)	48.7	128,618
1982	49,980	41.3	16,925	(1,791)	14.0	54,242	(11,948)	44.7	121,147
1983	48,698	54.6	13,967	(4,100)	15.7	26,492	(4,997)	29.7	89,157
1984	43,814	49.7	15,342	(5,625)	17.4	29,083	(8,167)	32.9	88,239

(1) Numbers in parenthesis refer to Convention refugees.

(2) Numbers in parenthesis refer to assisted relatives.

Source: Library of Parliament (1986), Table 1, page 5.

Table 2
Basic Demographic Data for Canada, 1976-1985, by Calendar Year

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985*	Average
Total Population on January 1	22,883,900	23,158,400	23,417,400	23,644,500	23,911,900	24,221,300	24,511,800	24,782,600	25,021,400	25,263,800	24,081,700
Births	360,400	360,700	360,200	366,100	370,700	371,300	373,100	373,700	377,000	379,100	369,200
Deaths	167,200	167,500	168,200	168,200	171,500	171,000	174,400	174,500	175,700	178,400	171,660
Natural Increase	193,200	193,200	192,000	197,900	199,200	200,300	198,700	199,200	201,300	200,700	197,540
Birth Rate (%)	1.57	1.55	1.53	1.55	1.55	1.53	1.51	1.50	1.51	1.50	1.53
Death Rate (%)	0.73	0.72	0.72	0.71	0.72	0.70	0.71	0.70	0.70	0.71	0.71
Rate of Natural Increase (%)	0.84	0.83	0.81	0.84	0.83	0.83	0.80	0.80	0.80	0.79	0.82
Immigration	149,400	114,900	86,300	112,100	143,100	128,600	121,100	89,200	88,200	84,300	111,720
Emigration	64,400	61,400	63,500	54,700	45,200	43,500	49,000	49,600	47,200	47,700	52,620
Net Migration	85,000	53,500	22,800	57,400	97,900	85,100	72,100	39,600	41,000	36,600	59,100
Net Migration Rate (%)	0.37	0.23	0.10	0.24	0.41	0.35	0.29	0.16	0.16	0.14	0.25
Total Annual Pop. Increase (1)	274,500	259,000	227,100	267,400	309,400	290,500	270,800	238,800	242,400	237,400	261,730
Residual (2)	-3,700	12,300	12,300	12,100	12,300	5,100	0	0	0	0	5,040
(%) Rate of Pop. Growth	1.20	1.12	0.97	1.13	1.29	1.20	1.10	0.95	0.96	0.93 (3)	1.09
% of Annual Growth from Natural Increase	70.4	74.6	84.5	74.0	64.4	69.0	73.4	83.4	83.0	84.5	76.1
% of Annual Growth from Net Migration	31.0	20.7	10.1	21.5	31.6	29.3	26.6	16.6	16.9	15.4	22.0
% of Annual Growth from Residual	-1.4	4.7	5.4	4.5	4.0	1.7	--	--	--	--	1.9
Total Fertility Rate	1.825	1.806	1.757	1.764	1.746	1.704	1.694	1.680	1.686	N/A	1.740

(1) Total Increase = $P_{x+1} - P_x$.

(2) Residual: Total annual population increase between the 1976 Census and the 1981 Census, minus the sum of (i) the Intercensal estimate of natural increase and (ii) the Intercensal estimate of net migration. The residual thus accounts for "closure error", which is the difference between the actual Census counts and the Intercensal estimate of total annual population increase for that five-year period.

(3) Pop. January 1, 1986 = 25,501,200.

* Final data from 1976 to 1984 and preliminary data for 1985.

Source: CEIC (1986) Table on Basic Demographic Data for Canada, 1976-1985, By Calendar Year.

Table 3
Sources of Labour Force Growth
(average annual per cent rates of growth)

	1951-1956	1956-1966	1966-1973	1973-1979	1979-1983
Source Population	2.1	2.2	2.6	2.3	1.7
- Net Immigration	1.0	0.5	0.4	0.4	0.3
- Domestic	1.1	1.7	2.2	1.9	1.4
Participation Rate	-0.1	0.4	0.7	1.0	0.3
Total Labour Force	2.1	2.6	3.3	3.3	2.1

Source: Library of Parliament (1986), Table 2, page 10.

Table 4
Business Immigrants and Funds
1983 and 1984

	Landings (Family Units)		Estimated Funds ($ Millions)	
Entrepreneurs and Self Employed Persons				
1983	1982	(4.0%)	821	(50.0%)
1984	1900	(3.5%)	723	(41.2%)
All other Immigrants				
1983	51,753	(96.0%)	826	(50.0%)
1984	52,332	(96.5%)	1,031	(58.8%)
Total				
1983	53,735	(100.0%)	1,647	(100.0%)
1984	54,232	(100.0%)	1,754	(100.0%)

Source: 1983 figures are derived from CEIC (1984, a).

1984 figures are derived from CEIC (1985).